REMARKS

This application has been reviewed in light of the Office Action dated January 23, 2007. Claims 1-25 are pending in the application. By the present amendment, claims 5, 7 and 14 have been amended to clarify the claims and correct typographical errors. No new matter has been added. The Examiner's reconsideration of the rejection in view of the amendment and the following remarks is respectfully requested.

By the Office Action, claims 1-2, 4, 6-11, 13, 15-22 and 24 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Application Publication No. 2004/0091268 to Hogan et al. (hereinafter Hogan) in view of U.S. Patent No. 5,023,753 to Abe (hereinafter Abe).

It should be noted that claim 24 is dependent from claim 23 which has been deemed allowable by the Examiner. Reconsideration is respectfully requested.

Hogan is directed to an optical bench which includes RF signal lines and an RF choke. Hogan describes the use of impedance matching film resistors 36 to match laser impedance to the transmission line impedance and laser driver impedance (see page 2, paragraph [0037]. Hogan provides impedance matching using resistors in the trace leads or mounted on the optical bench. Hogan does not disclose or suggest providing impedance matching through the dimensioning of the RF lines themselves. In addition, as the Examiner stated, Hogan does not disclose or suggest a shield formed as part of the RF lines and disposed below the RF choke.

The Examiner cites Abe to cure this deficiency. However, as with Hogan, Abe fails to disclose or suggest at least: a signal layer having radio frequency (RF) transmission

lines disposed over a ground plane, the RF lines configured and dimensioned to provide impedance matching along the RF lines and a shield formed as a part of the RF lines and disposed below an RF choke of a DC current supply to form an intermediate capacitance between the choke and the shield to control parasitic effects.

Abe provides a capacitor C2 that assists in reducing common mode noise. The lines of C2 are in a same plane and run parallel to one another between two circuit devices. There is no disclosure or suggestion of a shield formed as a part of RF lines where the shield is disposed below an RF choke of a DC current supply to form an intermediate capacitance between the choke and the shield to control parasitic effects. Neither Abe or Hogan, alone or in combination, forms a shield from part of an RF line where the shield forms an intermediate capacitor between an RF choke and ground.

Abe does not include an RF choke; however even if Abe were combined with Hogan, there is no disclosure or suggestion in either reference that a portion of an RF line be employed as a shield. In addition, neither reference discloses or suggests forming a shield between an RF choke and ground to provide an intermediate capacitance. Considering the structure in Abe, two capacitor lines 14 and 18 run parallel to one another and connect to external leads of circuit devices 12 and 13 (see Abe FIG. 1). Layer 15 is a ground plane which covers the entire device. Layer 14 is a signal line and layer 18 is a ground pattern. As is apparent from FIG. 2, none of the capacitors C1, (between 14 and 15), C2 (between 14 and 18) and C3 (between 18 and 15) form an intermediate capacitor between a choke and a shield to control parasitic effects. None of the structures of Abe create an intermediate capacitor or form a shield between the capacitors plates described and shown in Abe. For Abe to teach such a

structure, an additional capacitance (and additional plate) would be needed interposed between the structures depicted in FIG. 2 (or FIG. 7) of Abe.

Claims 1 and 10 essentially recite, *inter alia*, a signal layer having radio frequency (RF) transmission lines disposed over a ground plane, the RF lines configured and dimensioned to provide impedance matching along the RF lines, and a shield formed as a part of the RF lines and disposed below an RF choke of a DC current supply to form an intermediate capacitance between the choke and the shield to control parasitic effects.

Neither Hogan and/or Abe, taken alone or in combination teach or suggest at least 1) the RF lines configured and dimensioned to provide impedance matching along the RF lines, 2) a shield formed as a part of the RF lines and 3) the shield being disposed below an RF choke of a DC current supply to form an intermediate capacitance between the choke and the shield.

Even if, *arguendo*, placing a shield for the RF choke could be conceived by the cited combination (which it is not), using a portion of the RF lines to provide such a feature is not disclosed or suggested. Since the cited combination fails to teach or suggest all of the cited elements of claims 1, 10 and the claims dependent therefrom, claims 1-17 are believed to be in condition for allowance for at least the reasons stated. Early and favorable consideration is respectfully requested.

Claim 18 recites, *inter alia*, a method for fabricating a transceiver, which simultaneously provides impedance matched transmission for radio frequency (RF) and shields against transmission losses due to parasitic effects including: identifying parasitic electromagnetic elements associated with an RF choke for a given placement on a substrate;

and placing and dimensioning RF lines on the bench to form impedance matched RF lines wherein a portion of the RF lines shield the RF choke for a given bandwidth such that impedance matching and control of parasitic effects of the RF choke are simultaneously provided.

Neither Hogan and/or Abe disclose or suggest at least: placing and dimensioning RF lines on the bench to form impedance matched RF lines wherein a portion of the RF lines shield the RF choke for a given bandwidth such that impedance matching and control of parasitic effects of the RF choke are simultaneously provided. Nowhere in the cited combination is placing and dimensioning RF lines on the bench to form impedance matched RF lines wherein a portion of the RF lines shield the RF choke for a given bandwidth disclosed or suggested. Neither reference provides for a shield formed from a portion of the RF lines that is interposed to form a capacitance to shield the RF choke. The placing and dimensioning of RF lines to provide impedance matching and to form a shield are not disclosed or suggested by the cited combination for similar reasons as described above. Therefore, claims 18-25 are also believed to be in condition for allowance for at least the stated reasons. Reconsideration is earnestly solicited.

The Applicant notes with appreciation the allowability of claims 3, 5, 12, 14, 23, and 25 if rewritten in independent form including all of the limitations of the base claim and any intervening claims. However, in view of the foregoing amendments and remarks, it is respectfully submitted that all the claims now pending in the application are in condition for allowance. Early and favorable reconsideration of the case is respectfully requested.

It is believed that no additional fees or charges are currently due. However, in the event that any additional fees or charges are required at this time in connection with the application, they may be charged to applicant's IBM Deposit Account No. 50-0510.

Respectfully submitted,

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